

EXHIBIT A – Part 4

- Fate and Transport
 - Risk Assessment
- Conclusions
 - Data Limitations and Recommendations for Future Work
 - Recommended Remedial Action Objectives
- 8. References
- 9. Tables and Figures
(at least one set of figures shall be no larger than 11" x 17")
- 10. Appendices
 - Log Books
 - Soil Boring Logs
 - Test Pit/Trenching Logs
 - Landfill/Soil Gas Probe Construction Diagrams
 - Direct Soil Solute Sampling Construction Diagrams
 - Monitoring Well Construction Diagrams
 - Sample Collection Logs
 - Private and Public Well Records
 - Analytical Data and Data Validation Reports
 - Detailed Modeling Reports (if modeling is required in RI/FS Planning Documents or is otherwise conducted)

TASK 5: TREATABILITY STUDIES (RI/FS Guidance Chapter 5)

Based on currently available information, it is not certain whether treatability studies will be required to assist in the detailed analysis of Site alternatives. If U.S. EPA or the Respondents determine that treatability testing is necessary (Task 1.2.1.9), the Respondents shall conduct treatability studies as described in this Task 5 of this SOW. In addition, if applicable, the Respondents shall use the testing results and operating conditions in the detailed design of the selected remedial technology. The Respondents shall perform the following activities if treatability studies are needed.

5.1 Determine Candidate Technologies and of the Need for Testing (RI/FS Guidance Sections 5.2 and 5.4)

The Respondents shall submit a Candidate Technologies and Testing Needs Technical Memorandum, subject to U.S. EPA and Ohio EPA review and U.S. EPA approval, that identifies candidate technologies for a treatability studies program. The Respondents shall submit the technical memorandum as early as project planning (Task 1) to avoid any potential delays in the FS. The list of candidate technologies shall cover the range

of technologies required for alternatives analysis (Task 6.1). The Respondents shall determine and refine the specific data requirements for the testing program during Site characterization (Task 3) and the development and screening of remedial alternatives (Task 6).

5.1.1 *Conduct Literature Survey and Determine the Need for Treatability Testing*
(RI/FS Guidance Section 5.2)

The Respondents shall conduct a literature survey to gather information on the performance, relative costs, applicability, removal efficiencies, operation and maintenance (O&M) requirements, and implementability of candidate technologies. If the Respondents have not sufficiently demonstrated practical candidate technologies, or if such technologies cannot be adequately evaluated for this Site on the basis of the available information, the Respondents shall conduct treatability testing. If U.S. EPA determines that treatability testing is necessary, and the Respondents cannot demonstrate to U.S. EPA's satisfaction that such testing is unnecessary, then the Respondents shall submit a statement of work to U.S. EPA and Ohio EPA that outlines the steps and the data necessary to evaluate and initiate the treatability testing program.

5.1.2 *Evaluate Treatability Studies* (RI/FS Guidance Section 5.4)

Once a decision has been made to perform treatability studies, the Respondents shall propose and U.S. EPA will decide on the type of treatability testing to use (e.g., bench versus pilot). Because of the time required to design, fabricate, and install pilot scale equipment as well as perform testing for various operating conditions, the decision to perform pilot testing will be made as early in the process as possible to minimize potential delays of the FS. To assure that a treatability testing program is completed on time, and with accurate results, the Respondents shall either submit a separate Treatability Testing Work Plan and SAP, or amendments to the original RI/FS Work Plan, FSP, QAPP for U.S. EPA and Ohio EPA review and U.S. EPA approval.

5.2 Treatability Testing and Deliverables (RI/FS Guidance Sections 5.5, 5.6 and 5.8)

In addition to the Candidate Technologies and Testing Needs Technical Memorandum, if treatability testing is needed, the Respondents shall also submit a Treatability Study Work Plan, a Sampling and Analysis Plan, a Health and Safety Plan and a Treatability Evaluation Report.

5.2.1 *Treatability Testing Work Plan and Sampling and Analysis Plan (SAP)* (RI/FS Guidance Section 5.5)

The Respondents shall prepare a Treatability Testing Work Plan and a SAP, or amendments to the original RI/FS Work Plan, FSP and QAPP for U.S. EPA and Ohio

EPA review and U.S. EPA approval that describes the Site background, the remedial technology(ies) to be tested, test objectives, experimental procedures, treatability conditions to be tested, measurements of performance, analytical methods, data management and analysis, health and safety, and residual waste management. The Respondents shall document the DQOs for treatability testing as well. If pilot scale treatability testing is to be performed, the Treatability Study Work Plan shall describe pilot plant installation and start-up, pilot plant operation and maintenance procedures, operating conditions to be tested, a sampling plan to determine pilot plant performance, and a detailed health and safety plan. If testing is to be performed off-Site, the plans shall address all permitting requirements. The requirements of SAPs are outlined in Task 1.3.2 of this SOW.

5.2.2 *Treatability Study Health and Safety Plan* (RI/FS Guidance Section 5.5)

If the original Health and Safety Plan is not adequate for defining the activities to be performed during the treatability tests, the Respondents shall submit a separate or amended Health and Safety Plan. Task 1.3.3 of this SOW provides additional information on the requirements of the Health and Safety Plan. U.S. EPA and Ohio EPA review, but do not "approve" the Treatability Study Health and Safety Plan.

5.2.3 *Treatability Study Evaluation Report* (RI/FS Guidance Section 5.6)

Following the completion of the treatability testing, the Respondents shall analyze and interpret the testing results in a technical report to U.S. EPA and Ohio EPA. Depending on the sequence of activities, this report may be a part of the Site Characterization Technical Memorandum (Task 3.1), the RI Report (Task 4) or submitted as a separate deliverable. The Treatability Study Evaluation Report shall evaluate each technology's effectiveness, implementability and cost, and actual results as compared with predicted results. The report shall also evaluate full scale application of the technology, including a sensitivity analysis identifying the key parameters affecting full-scale operation.

TASK 6: DEVELOPMENT AND SCREENING OF ALTERNATIVES (Technical Memorandum)

The Respondents shall develop and screen remedial alternatives to meet the remedial action objectives for the Site to determine an appropriate range of remedial options that the Respondents shall evaluate in the FS. This range of alternatives shall include, as appropriate, options in which treatment is used to reduce the toxicity, mobility, or volume of wastes, but which vary in the types of treatment, the amount treated, and the manner in which long-term residuals or untreated media are managed; options involving containment with little or no treatment; options involving both treatment and containment; and a no-action alternative. The Respondents shall perform the following activities as a function of the development and screening of remedial alternatives.

Consistent with the Presumptive Remedy Guidance, remedial alternatives to contain and address the direct contact risk from the landfill materials in the Presumptive Remedy Area and to address other Site areas and/or media in which the risk assessment (streamlined or conventional) indicates that remedial action is clearly warranted and that a Presumptive Remedy approach is appropriate shall be described in the Alternatives Screening Technical Memorandum and will be given detailed analysis in the FS Report.

Potential Remedial Alternatives may be screened and developed in accordance with *Conducting Remedial Investigations/Feasibility Studies for CERCLA Municipal Landfill Sites* (EPA/540/P-91/001, February 1991) and *Implementing Presumptive Remedies* (EPA 540-R-97-029, October 1997) (see sections for municipal landfills, contaminated groundwater and any other applicable sections). Presumptive remedies involve using remedial technologies that have been consistently selected at similar sites or for similar types of contamination. Using the presumptive remedy guidance provides an immediate focus to the identification and analysis of remedial alternatives.

6.1 Develop and Screen Remedial Alternatives (RI/FS Guidance Section 4.2)

The Respondents shall begin to develop and evaluate a range of appropriate remedial options that at a minimum ensure protection of human health and the environment and meet the remedial action objectives. The Respondents shall present and summarize the development and screening of the remedial alternatives in the Alternatives Screening Technical Memorandum (Task 6.2.2).

Consistent with the Presumptive Remedy Guidance, remedial alternatives to contain and address the direct contact risk from the landfill materials in the Presumptive Remedy Area and to address other Site areas and/or media in which the risk assessment (streamlined or conventional) indicates that remedial action is clearly warranted and that a Presumptive Remedy approach is appropriate shall be described and identified in the Alternatives Screening Technical Memorandum consistent with the Presumptive Remedy Guidance and other relevant U.S. EPA presumptive remedy guidance.

6.1.1 *Refine and Document Remedial Action Objectives* (RI/FS Guidance Section 4.2.1)

Based on the baseline human health and ecological risk objectives, the Respondents shall review and if necessary modify the Site-specific remedial action objectives, specifically the preliminary remedial action objectives established by U.S. EPA prior to or during negotiations between U.S. EPA and the Respondents. The preliminary remedial action objectives for the South Dayton Dump and Landfill Site are listed in Task 1 of this SOW. The Respondents shall document the revised remedial action objectives in a Remedial Action Objectives Technical Memorandum (Task 6.2.1) for U.S. EPA and Ohio EPA review and for U.S. EPA approval. The modified remedial

action objectives shall specify the constituents of concern and the media of interest; exposure pathways and receptors; and an acceptable contaminant level or range of levels (at particular locations for each exposure route).

6.1.2 *Develop General Response Actions* (RI/FS Guidance 4.2.2)

After U.S. EPA approves the modified remedial action objectives, the Respondents shall develop general response actions for each medium of interest including containment, treatment, excavation, pumping, or other actions, singly or in combination, to satisfy the U.S. EPA-approved remedial action objectives.

Consistent with the Presumptive Remedy Guidance, the general response action to address the unacceptable risk posed by direct contact with the landfill materials in the Presumptive Remedy Area shall be containment. The general response action(s) to address other Site areas and/or media in which the risk assessment (streamlined or conventional) indicates that remedial action is clearly warranted and that a Presumptive Remedy approach is appropriate shall also be consistent with the Presumptive Remedy Guidance and other relevant U.S. EPA presumptive remedy guidance.

6.1.3 *Identify Areas or Volumes of Media* (RI/FS Guidance Section 4.2.3)

The Respondents shall identify areas or volumes of media to which the general response actions may apply, taking into account requirements for protectiveness as identified in the remedial action objectives. The Respondents shall also take into account the chemical and physical characterization of the Site.

6.1.4 *Identify, Screen, and Document Remedial Technologies* (RI/FS Guidance Sections 4.2.4 and 4.2.5)

The Respondents shall identify and evaluate technologies applicable to each general response action to eliminate those that cannot be implemented at the Site. The Respondents shall refine applicable general response actions to specify remedial technology types. The Respondents shall identify technology process options for each of the technology types concurrently with the identification of such technology types or following the screening of considered technology types. The Respondents shall evaluate process options on the basis of effectiveness, implementability, and cost factors to select and retain one or, if necessary, more representative processes for each technology type. The Respondents shall summarize and include the technology types and process options in the Alternatives Screening Technical Memorandum. Whenever practicable, the alternatives shall also consider the CERCLA preference for treatment over conventional containment or land disposal approaches.

The preliminary list of alternatives to address the landfill contents, contaminated soil and air outside the Presumptive Remedy Area, and to address hot spots, sediments, surface water, groundwater, landfill gas and soil vapor contamination within and outside

the Presumptive Remedy Area shall consist of, but is not limited to, treatment technologies, removal and off-site treatment/disposal, removal and on-site disposal, and in-place containment for soils, sediments, and wastes. See 40 CFR 300.430(e)(1)-(7). The Respondents shall specify the reasons for eliminating any alternatives.

Consistent with the Presumptive Remedy Guidance, this step is not required for remedial alternatives to contain and address the direct contact risk from the landfill materials in the Presumptive Remedy Area or to address other Site areas and/or media in which the risk assessment (streamlined or conventional) indicates that remedial action is clearly warranted and that a Presumptive Remedy approach is appropriate. Appropriate presumptive remedies shall be described in the Alternatives Screening Technical Memorandum and will be given detailed analysis in the FS Report.

6.1.5 *Assemble and Document Alternatives* (RI/FS Guidance Section 4.2.6)

The Respondents shall assemble the selected representative technologies into alternatives for each affected medium or operable unit. Together, all of the alternatives shall represent a range of treatment and containment combinations that shall address either the Site or the operable unit as a whole. The Respondents shall prepare a summary of the assembled alternatives and their related action-specific ARARs for the Alternatives Screening Technical Memorandum. The Respondents shall specify the reasons for eliminating alternatives during the preliminary screening process.

Consistent with the Presumptive Remedy Guidance, this step is not required for remedial alternatives to contain and address the direct contact risk from the landfill materials in the Presumptive Remedy Area or to address other Site areas and/or media in which the risk assessment (streamlined or conventional) indicates that remedial action is clearly warranted and that a Presumptive Remedy approach is appropriate. Appropriate presumptive remedies shall be described in the Alternatives Screening Technical Memorandum and will be given detailed analysis in the FS Report.

6.1.6 *Refine Alternatives*

The Respondents shall refine the remedial alternatives to identify the volumes of contaminated media addressed by the proposed processes and size critical unit operations as necessary. The Respondents shall collect sufficient information for an adequate comparison of alternatives. The Respondents shall also modify the remedial action objectives for each chemical in each medium as necessary to incorporate any new human health and ecological risk assessment information presented in the Respondents' baseline human health and ecological risk assessment reports. Additionally, the Respondents shall update action-specific ARARs as the remedial alternatives are refined.

Consistent with the Presumptive Remedy Guidance, this step is not required for remedial alternatives to contain and address the direct contact risk from the landfill

materials in the Presumptive Remedy Area or to address other Site areas and/or media in which the risk assessment (streamlined or conventional) indicates that remedial action is clearly warranted and that a Presumptive Remedy approach is appropriate. Appropriate presumptive remedies shall be described in the Alternatives Screening Technical Memorandum and will be given detailed analysis in the FS Report.

6.1.7 *Conduct and Document Screening Evaluation of Each Alternative* (RI/FS Guidance Section 4.3)

The Respondents may perform a final screening process based on short and long term aspects of effectiveness, implementability, and relative cost. Generally, this screening process is only necessary when there are many feasible alternatives available for a detailed analysis. If necessary, the Respondents shall conduct the screening of alternatives to assure that only the alternatives with the most favorable composite evaluation of all factors are retained for further analysis. As appropriate, the screening shall preserve the range of treatment and containment alternatives that was initially developed. The range of remaining alternatives shall include options that use treatment technologies and permanent solutions to the maximum extent practicable. The Respondents shall prepare an Alternatives Screening Technical Memorandum that summarizes the results and reasoning employed in screening; arrays the alternatives that remain after screening; and identifies the action-specific ARARs for the alternatives that remain after screening (Task 6.2.2).

Consistent with the Presumptive Remedy Guidance, this step is not required for remedial alternatives to contain and address the direct contact risk from the landfill materials in the Presumptive Remedy Area or to address other Site areas and/or media in which the risk assessment (streamlined or conventional) indicates that remedial action is clearly warranted and that a Presumptive Remedy approach is appropriate. Appropriate presumptive remedies shall be described in the Alternatives Screening Technical Memorandum and will be given full evaluation in the FS Report.

6.2 Alternatives Development and Screening Deliverables (RI/FS Guidance Section 4.5)

The Respondents shall prepare and submit two technical memoranda for this task.

6.2.1 *Remedial Action Objectives Technical Memorandum* (see Task 6.1.1)

The Respondents shall submit a Remedial Action Objectives Technical Memorandum (see Task 6.1.1) to Ohio EPA and U.S. EPA for review. The Respondents shall submit the Remedial Action Objectives Technical Memorandum at the same time as the Draft RI Report (60 days after receipt of U.S. EPA's comments on the Site Characterization Technical Memorandum - see Task 4). The Respondents shall address and incorporate U.S. EPA's comments on the Remedial Action Objectives Technical Memorandum in the Alternatives Screening Technical Memorandum (Task 6.2.2).

6.2.2 Alternatives Screening Technical Memorandum (see Tasks 6.1.1 to 6.1.7)

The Respondents shall submit an Alternatives Screening Technical Memorandum to Ohio EPA and U.S. EPA for review. The Alternatives Screening Technical Memorandum shall summarize the work performed during and the results of each of the above tasks (Task 6.1.1 to 6.1.7), and shall include an alternatives array summary. If required by U.S. EPA, the Respondents shall modify the alternatives array to assure that the array identifies a complete and appropriate range of viable alternatives to be considered in the detailed analysis. The Alternatives Screening Technical Memorandum shall document the methods, the rationale and the results of the alternatives screening process. The Alternative Screening Technical Memorandum shall also document the presumptive remedies to be evaluated in the FS, the remedial action objectives each presumptive remedy addresses, and the general response action of each presumptive remedy. The Respondents shall address and incorporate U.S. EPA's comments on the Alternatives Screening Technical Memorandum in the draft FS Report (Task 7.2). The Respondents shall submit the Alternatives Screening Technical Memorandum within 21 calendar days after receipt of U.S. EPA's comments on the Remedial Action Objectives Technical Memorandum.

TASK 7: DETAILED ANALYSIS of ALTERNATIVES (FS REPORT) (RI/FS Guidance Chapter 6)

The Respondents shall conduct and present a detailed analysis of remedial alternatives to provide U.S. EPA with the information needed to select a Site remedy.

7.1 Detailed Analysis of Alternatives (RI/FS Guidance Section 6.2)

The Respondents shall conduct a detailed analysis of the remedial alternatives for the Site. The detailed analysis shall include an analysis of each remedial option against a set of nine evaluation criteria, and a comparative analysis of all options using the same nine criteria as a basis for comparison.

7.1.1 *Apply Nine Criteria and Document Analysis* (RI/FS Guidance Sections 6.2.1 to 6.2.4)

The Respondents shall apply the nine evaluation criteria to the assembled remedial alternatives to ensure that the selected remedial alternative will protect human health and the environment and meet remedial action objectives; will comply with, or include a waiver of, ARARs; will be cost-effective; will utilize permanent solutions and alternative treatment technologies, or resource recovery technologies, to the maximum extent practicable; and will address the statutory preference for treatment as a principal element. The evaluation criteria include: (1) overall protection of human health and the environment and how the alternative meets each of the remedial action objectives; (2) compliance with ARARs; (3) long-term effectiveness and permanence; (4) reduction of toxicity, mobility, or volume; (5) short-term effectiveness; (6) implementability; (7) cost;

(8) state (or support agency) acceptance; and (9) community acceptance. (Note: criteria 8 and 9 are considered after the RI/FS report has been released to the general public.) For each alternative the Respondents shall provide: (1) A description of the alternative that outlines the waste management strategy involved and identifies the key ARARs associated with each alternative, and (2) A discussion of the individual criterion assessment. If the Respondents do not have direct input on criteria (8) state (or support agency) acceptance and (9) community acceptance, U.S. EPA will address these criteria.

7.1.2 *Compare Alternatives Against Each Other and Document the Comparison of Alternatives* (RI/FS Guidance Sections 6.2.5 and 6.2.6)

The Respondents shall perform a comparative analysis between the remedial alternatives. That is, the Respondents shall compare each alternative against the other alternatives using the evaluation criteria as a basis of comparison. U.S. EPA will identify and select the preferred alternative. The Respondents shall present and discuss the detailed results of the comparative analysis of alternatives in the draft FS Report (Task 7.2). The comparative analysis of alternatives in the draft FS Report (Task 7.2) shall fully and satisfactorily address and incorporate U.S. EPA's comments on the Alternatives Screening Technical Memorandum (Task 6.2.2) and the draft FS Report submittal shall include a response to comments explaining how each of U.S. EPA's comments on the Alternatives Screening Technical Memorandum was addressed in the draft FS Report.

7.2 Feasibility Study Report (RI/FS Guidance Section 6.5)

Within 60 days after receipt of U.S. EPA's comments on the Alternatives Screening Technical Memorandum (Task 6.2.2), the Respondents shall prepare and submit a draft FS Report for U.S. EPA and Ohio EPA review. The FS Report shall be consistent with the ASAO and this SOW and shall fully and satisfactorily address and incorporate U.S. EPA's comments on the Alternatives Screening Technical Memorandum (Task 6.2.2). The FS Report submittal shall include a response to comments explaining how each of U.S. EPA's comments on the Alternatives Screening Technical Memorandum was addressed in the FS Report. The FS report shall summarize the development and screening of the remedial alternatives (Task 6) and present the detailed analysis of remedial alternatives (Task 7.1). In addition, the FS Report shall also include the information U.S. EPA will need to prepare relevant sections of the Record of Decision (ROD) for the Site [see Chapters 6 and 9 of U.S. EPA's *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents* (EPA 540-R-98-031, July 1999) for the information that is needed]. Following comment by U.S. EPA, the Respondents shall prepare a final FS Report which fully and satisfactorily addresses each of U.S. EPA's comments on the draft FS Report. The final FS Report submittal shall include a response to comments detailing how each of U.S. EPA's comments on the draft FS Report was addressed in the final FS Report. The Respondents shall submit the final FS Report to Ohio EPA for review and to U.S.

EPA for review and approval within 21 calendar days of the receipt of U.S. EPA's comments on the draft FS Report. The Respondents shall submit any subsequent revisions to the FS Report, if any are required, to Ohio EPA for review and to U.S. EPA for review and approval within 15 calendar days of the receipt of U.S. EPA's comments on the final FS Report. If the Respondents require additional time to respond to U.S. EPA's comments on the FS Report, the Respondents shall provide U.S. EPA with a written request to extend the submission schedule. The Respondents' request shall discuss the specific causes of the delay, as well as the actions the Respondents are taking and plan to take to address the issues causing the delay. Based on the supporting information provided in the request U.S. EPA may grant up to a 30-day extension in the submission schedule.

The Respondents shall not make any changes to the FS Report that are not a direct result of addressing agency comments. The Respondents shall identify all revisions to the FS Report in the response to comments.

The FS Report, as ultimately adopted or amended by U.S. EPA provides the basis for conducting a remedial action at the Site and documents the development and analysis of remedial alternatives. The Respondents shall refer to Section 6 of the RI/FS Guidance for an outline of the FS Report format and the required FS Report contents.

TASK 8: PROGRESS REPORTS

The Respondents shall submit monthly written progress reports to U.S. EPA and Ohio EPA concerning actions undertaken pursuant to the ASAOC and this SOW, beginning 30 calendar days after the effective date of the ASAOC, until the termination of the ASAOC, unless otherwise directed in writing by the RPM. These reports shall include, but not be limited to, a description of all significant developments during the preceding period, including the specific work that was performed and any problems that were encountered; a copy and summary of the analytical data that was received during the reporting period; and the developments anticipated during the next reporting period, including a schedule of work to be performed, anticipated problems, and actual or planned resolutions of past or anticipated problems. The monthly progress reports will summarize the field activities conducted each month including, but not limited to drilling and sample locations, depths and descriptions; boring logs; sample collection logs; field notes; problems encountered; solutions to problems; a description of any modifications to the procedures outlined in the RI/FS Work Plan, the FSP, QAPP or Health and Safety Plan, with justifications for the modifications; a summary of all data received during the reporting period and the analytical results; and upcoming field activities. In addition, the Respondents shall provide the RPM or the entity designated by the RPM with all laboratory data within the monthly progress reports and in no event later than 60 days after samples are shipped for analysis for raw analytical data and 90 days after samples are shipped for analysis for validated analytical data.

South Dayton Dump Site
Moraine, Ohio
Montgomery County

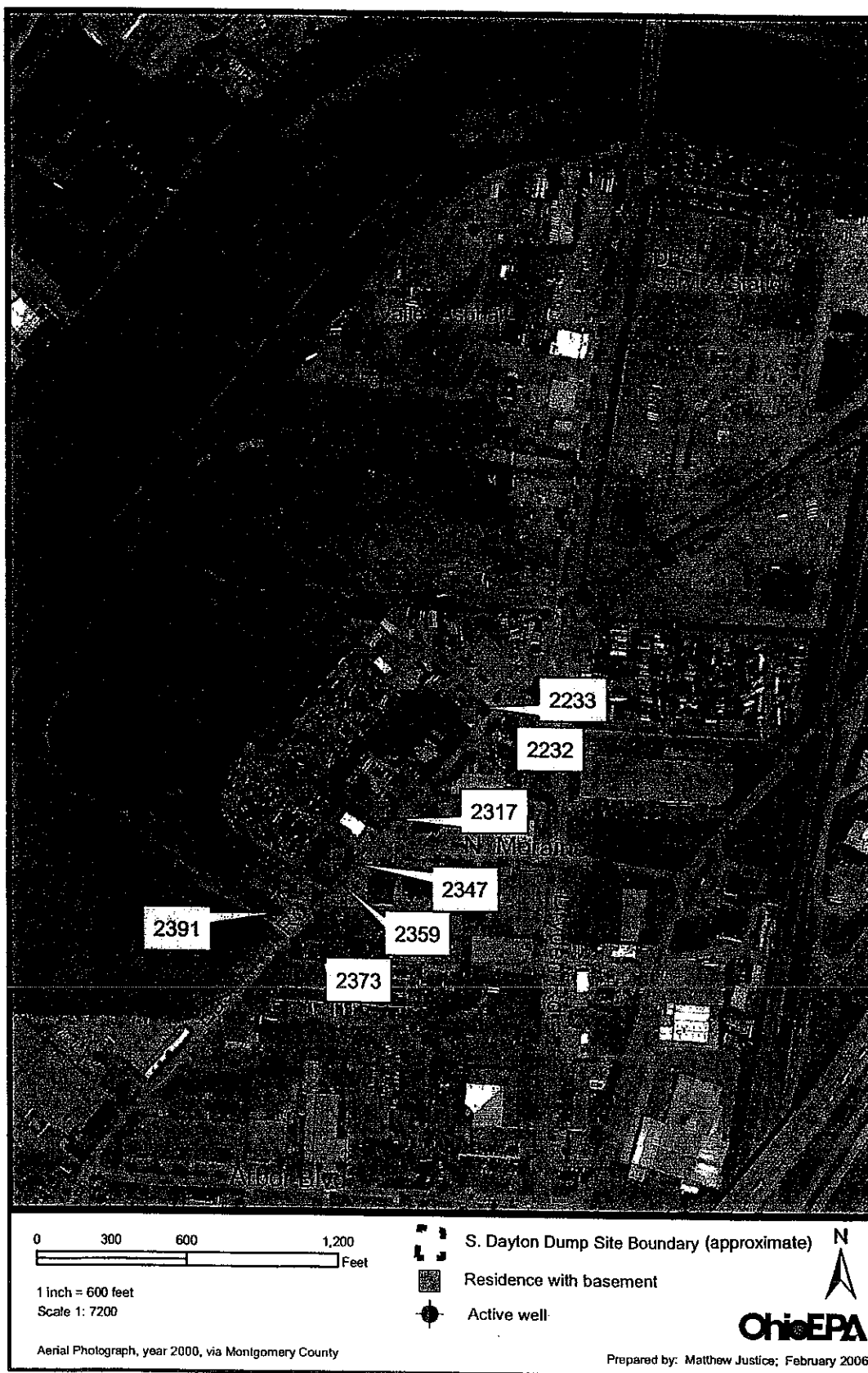
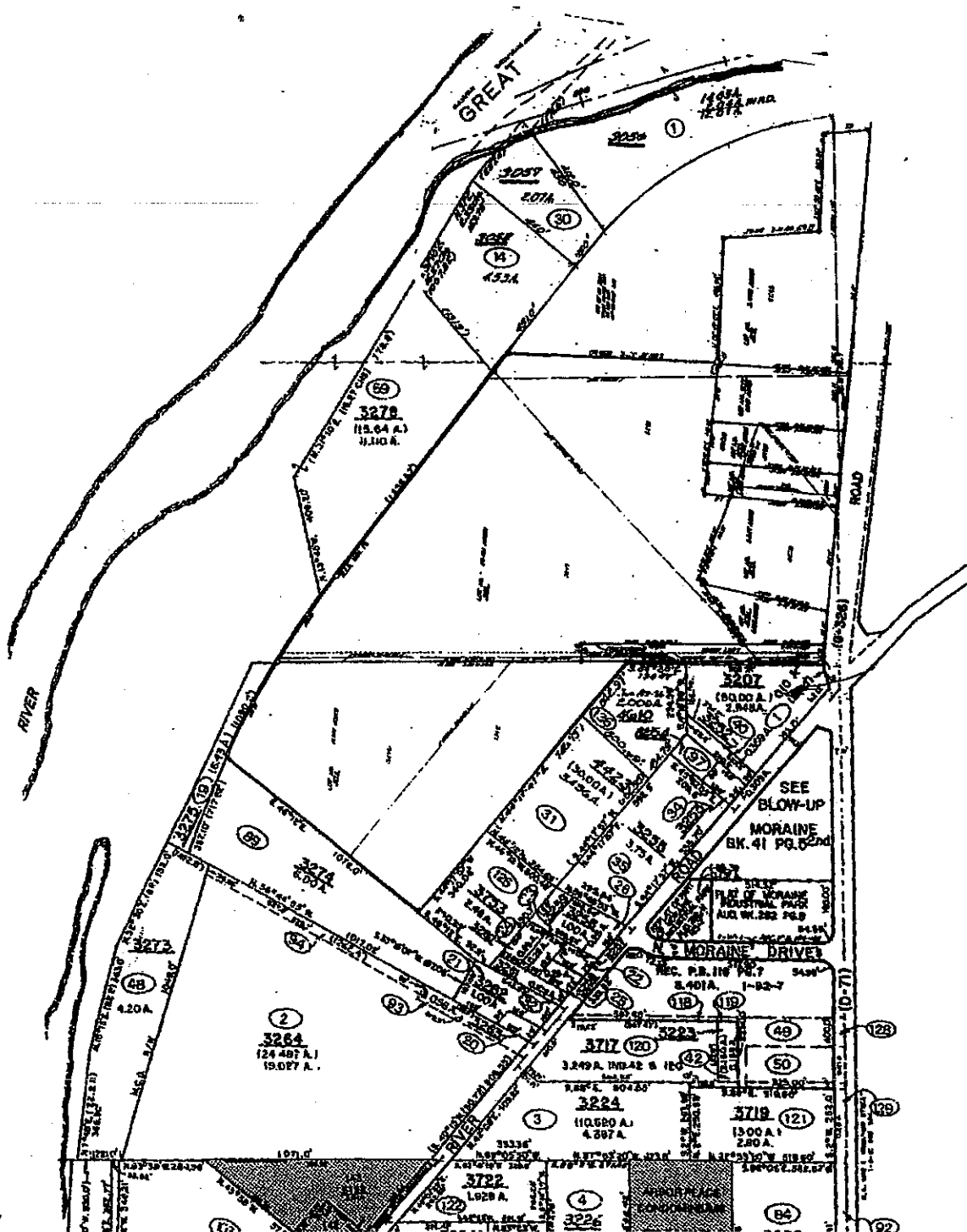


FIGURE 1



SITE CURRENTLY INCLUDES LOT
Nos: 5054, 5171, 5172, 5173, 5174
5175, 5176, 5177, 5178, 3274, 3753,
4423, 4610 and 3252

South Dayton Dump Site
Montgomery County, Ohio

Sources: Montgomery Co. Appraisal District (2004)
Grillot & Boesch Plat (1999)
Approximate scale: 1"=500'

FIGURE 2

South Dayton Dump Site
Moraine, Ohio
Montgomery County



FIGURE 3

TABLE 1

PHASE 1 REMEDIAL INVESTIGATION INSTALLATIONS SOUTH DAYTON DUMP AND LANDFILL SITE MORaine, OHIO

Number and Type of Installation

- Geophysical Survey:
 - Open and accessible Site areas west of Dryden Road
- Land Survey:
 - Site
- Geoprobe shallow groundwater investigation
 - Up to 6 shallow geoprobe locations
- Nine test trenches
- Four test pits
- Five vertical profiles
- Five new shallow groundwater monitoring wells
- One shallow source area groundwater monitoring well
- Three new deep groundwater monitoring wells
- Two contingency deep groundwater monitoring wells
- Three shallow piezometers
- Up to 10 staff gauges
- Survey locations
- One surface soil sample and one subsurface soil sample at each new monitoring well or probe location
- Levee inspection
- Collect up to five soil samples for geotechnical analysis
- Bathymetry Survey of Quarry Pond
- Three sediment and three surface water samples
- Five landfill gas probes
- Wetland delineation

EXHIBIT A
SCHEDULE FOR MAJOR DELIVERABLES

DELIVERABLE	DUE DATE
TASK 1.2.2 - Preliminary Remedial Action Objectives Technical Memorandum	30 calendar days after the effective date of the ASAO
TASK 1.3.1 - RI/FS Work Plan	Draft RI/FS Work Plan due 60 calendar days after receipt of U.S. EPA's comments on or approval of the Preliminary Remedial Action Objectives Technical Memorandum (Task 1.2.2). Final RI/FS Work Plan due 30 calendar days after receipt of U.S. EPA's comments on the draft RI/FS Work Plan. Any subsequent revisions, if required, are due within 21 calendar days of receipt of U.S. EPA's comments.
Task 1.3.1.1 - Phased RI/FS Planning Documents	Draft Technical Memorandum for each phase of field work and draft Phased RI/FS Planning Documents (RI/FS Work Plan, Field Sampling Plan, Quality Assurance Project Plan and Health and Safety Plan) for next phase of work (if required) due 30 days after the completion of each phase of field work. Final Technical Memorandum and Phased RI/FS Planning Documents due 21 calendar days after receipt of U.S. EPA's comments on draft Technical Memorandum and draft Phased RI/FS Planning Documents. Any subsequent revisions, if required, are due within 15 calendar days of receipt of U.S. EPA's comments.

DELIVERABLE	DUE DATE
TASK 1.3.2.1 - Field Sampling Plan	Draft Field Sampling Plan due 60 calendar days after receipt of U.S. EPA's comments on or approval of the Preliminary Remedial Action Objectives Technical Memorandum (Task 1.2.2). Final Field Sampling Plan due 30 calendar days after receipt of U.S. EPA's comments on the draft Field Sampling Plan. Any subsequent revisions, if required, are due within 21 calendar days of receipt of U.S. EPA's comments.
TASK 1.3.2.2 - Quality Assurance Project Plan and Quality Management Plan(s)	Draft Quality Assurance Project Plan and Quality Management Plan(s) due 60 calendar days after receipt of U.S. EPA's comments on or approval of the Preliminary Remedial Action Objectives Technical Memorandum (Task 1.2.2). Final Quality Assurance Project Plan and Quality Management Plan(s) due 30 calendar days after receipt of U.S. EPA's comments on the draft Field Sampling Plan. Any subsequent revisions, if required, are due within 21 calendar days of receipt of U.S. EPA's comments.
TASK 1.3.3 - Health and Safety Plan	Draft Health and Safety Plan due 60 calendar days after receipt of U.S. EPA's comments on or approval of the Preliminary Remedial Action Objectives Technical Memorandum (Task 1.2.2). Final Health and Safety Plan due 30 calendar days after receipt of U.S. EPA's comments on the draft Health and Safety Plan. Any subsequent revisions, if required, are due within 21 calendar days of receipt of U.S. EPA's comments.
TASK 3.1 - Site Characterization	In accordance with the schedule(s) in the U.S. EPA approved RI Planning Documents (Tasks 1.3.1, 1.3.2, 1.3.2.1 and 1.3.2.2) and Phased RI Planning Documents (Task 1.3.1.1)

DELIVERABLE	DUE DATE
Task 3.1 - Site Characterization Technical Memorandum	30 days after U.S. EPA's approval (or conditional approval) of the Technical Memorandum for the final phase of field work (Task 1.3.1.1).
Task 3.2 - Human Health Risk Assessment Report	Draft Human Health Risk Assessment Report due 60 calendar days after receipt of U.S. EPA's comments on the Site Characterization Technical Memorandum (Task 3.1). Final Human Health Risk Assessment Report due 30 calendar days after receipt of U.S. EPA's comments on the draft Human Health Risk Assessment Report. Any subsequent revisions, if required, are due within 21 calendar days of receipt of U.S. EPA's comments.
Task 3.3 - Ecological Risk Assessment Report	Draft Ecological Risk Assessment Report due 60 calendar days after receipt of U.S. EPA's comments on the Site Characterization Technical Memorandum (Task 3.1). Final Ecological Risk Assessment Report due 30 calendar days after receipt of U.S. EPA's comments on the draft Ecological Risk Assessment Report. Any subsequent revisions, if required, are due within 21 calendar days of receipt of U.S. EPA's comments.
TASK 4 - RI Report	Draft RI Report due 60 calendar days after receipt of U.S. EPA's comments on the Site Characterization Technical Memorandum (Task 3.1). Final RI Report due 30 calendar days after receipt of U.S. EPA's comments on the draft RI Report. Any subsequent revisions, if required, are due within 21 calendar days of receipt of U.S. EPA's comments.
TASK 5.1 - Candidate Technologies and Testing Needs Technical Memorandum	During Task 1 - Project Planning or early enough in the RI/FS to avoid potential delays in the FS.

DELIVERABLE	DUE DATE
TASK 5.2.1 - Draft and Final Treatability Testing Work Plan and SAP or Amendments to the Original RI/FS Work Plan, FSP and/or QAPP.	As approved by U.S. EPA in the RI/FS Work Plan (Task 1.3.1).
TASK 5.2.2 - Draft and Final Treatability Testing Health and Safety Plan or Amendment to the Original Health and Safety Plan	As approved by U.S. EPA in the RI/FS Work Plan (Task 1.3.1).
TASK 5.2.3 - Draft and Final Treatability Study Evaluation Report	With the Site Characterization Technical Memorandum (Task 3.1), the RI Report (Task 4), or as approved by U.S. EPA in the RI/FS Work Plan (Task 1.3.1).
TASK 6.2.1 - Remedial Action Objectives Technical Memorandum	With the draft RI Report (Task 4) - 60 calendar days after receipt of U.S. EPA's comments on the Site Characterization Technical Memorandum (Task 3.1).
TASK 6.2.2 - Alternatives Screening Technical Memorandum	21 calendar days after receipt of U.S. EPA's comments on the Remedial Action Objectives Technical Memorandum (Task 6.2.1)
TASK 7.1.2 - Comparative Analysis of Alternatives Technical Memorandum	21 calendar days after receipt of U.S. EPA's comments on the Alternatives Screening Technical Memorandum (Task 6.2.2).
Task 7.2 - FS Report	Draft FS Report due 21 calendar days after receipt of U.S. EPA's comments on the Comparative Analysis of Alternatives Technical Memorandum (Task 7.1.2). Final RI Report due 21 calendar days after receipt of U.S. EPA's comments on the draft FS Report. Any subsequent revisions, if required, are due within 15 calendar days of receipt of U.S. EPA's comments.
TASK 8: Monthly Progress Reports	On the 10 th day of each month or the first business day after the 10 th of the month commencing 30 calendar days after the effective date of the ASAO.

DELIVERABLE	DUE DATE
Miscellaneous Documents	In accordance with the submittal date provided by RPM

EXHIBIT B

PARTIAL LIST OF GUIDANCE

The following list, although not comprehensive, comprises many of the regulations and guidance documents that apply to the RI/FS process. The majority of these guidance documents, and additional applicable guidance documents, may be downloaded from the following websites:

<http://www.epa.gov/superfund/pubs.htm> (General Superfund)
<http://clu.in.org> (Site Characterization, Monitoring and Remediation)
<http://www.epa.gov/ORD/NRMRL/Pubs> (Site Characterization and Monitoring)
http://www.epa.gov/quality/ga_docs.html#guidance (Quality Assurance)
<http://www.epa.gov/superfund/programs/risk/toolthh.htm> (Risk Assessment - Human)
<http://www.epa.gov/superfund/programs/risk/tooleco.htm> (Ecological Risk Assessment)
<http://www.epa.gov/superfund/programs/lead> (Risk Assessment - Lead)
<http://cfpub.epa.gov/ncea> (Risk Assessment - Exposure Factors/Other)
<http://www.epa.gov/nepis/srch.htm> (General Publications Clearinghouse)
<http://www.epa.gov/clariton/clhtml/pubtitle.html> (General Publications Clearinghouse)

1. The (revised) National Contingency Plan;
2. *Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA*, U.S. EPA, Office of Emergency and Remedial Response, OSWER Directive No. 9355.3-01, EPA/540/G-89/004, October 1988.
3. *Conducting Remedial Investigations/Feasibility Studies for CERCLA Municipal Landfill Sites*, U.S. EPA, Office of Emergency and Remedial Response, EPA/540/P-91/001, February 1991.
4. *Implementing Presumptive Remedies*, U.S. EPA, Office of Emergency and Remedial Response, EPA-540-R-97-029, October 1997.
5. *Presumptive Remedy for CERCLA Municipal Landfill Sites*, U.S. EPA, OSWER Directive No. 9355.0-49FS, EPA-540-F-93-035, September 1993.
6. *Presumptive Remedies: CERCLA Landfill Caps RI/FS Data Collection Guide*, U.S. EPA, OSWER 9355.3-18FS, EPA/540/F-95/009, August 1995.
7. *Presumptive Response Strategy and Ex-Situ Treatment Technologies for Contaminated Ground Water at CERCLA Sites*, OSWER 9283.1-12, EPA-540-R-96-023, October 1996.
8. *Field Analytical and Site Characterization Technologies Summary of Applications*, U.S. EPA, EPA-542-F-97-024, November 1997.

9. *CLU-IN Hazardous Waste Clean-Up Information World Wide Web Site*, U.S. EPA, EPA-542-F-99-002, February 1999.
10. *Field Sampling and Analysis Technology Matrix and Reference Guide*, U.S. EPA, EPA-542-F-98-013, July 1998.
11. *Subsurface Characterization and Monitoring Techniques: A Desk Reference Guide, Volumes 1 and 2*, U.S. EPA, EPA/625/R-93/003, May 1993.
12. *Use of Airborne, Surface, and Borehole Geophysical Techniques at Contaminated Sites: A Reference Guide*, U.S. EPA, EPA/625/R-92/007(a,b), September 1993.
13. *Innovations in Site Characterization: Geophysical Investigation at Hazardous Waste Sites*, U.S. EPA, EPA-542-R-00-003, August 2000.
14. *Innovative Remediation and Site Characterization Technology Resources*, U.S. EPA, OSWER, EPA-542-F-01-026b, January 2001.
15. *Handbook of Suggested Practices for the Design and Installation of Ground-Water Monitoring Wells*, U.S. EPA, EPA/600/4-89/034, 1991.
16. *Ground-Water Sampling Guidelines for Superfund and RCRA Project Managers*, U.S. EPA, EPA-542-S-02-001, May 2002.
17. *Ground Water Issue: Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures*, U.S. EPA, EPA/540/S-95/504, April 1996.
18. *Superfund Ground Water Issue: Ground Water Sampling for Metals Analysis*, U.S. EPA, EPA/540/4-89/001, March 1989.
19. *Resources for Strategic Site Investigation and Monitoring*, U.S. EPA, OSWER, EPA-542-F-010030b, September 2001.
20. *Region 5 Framework for Monitored Natural Attenuation Decisions for Groundwater*, U.S. EPA Region 5, September 2000.
21. *Ground Water Issue: Suggested Operating Procedures for Aquifer Pumping Tests*, U.S. EPA, OSWER, EPA/540/S-93/503, February 1993.
22. *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water*, U.S. EPA, EPA/600/R-98/128, September 1998.
23. *Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action and Underground Storage Tank Sites*, U.S. EPA, OSWER Directive 9200.4-17P, April 21, 1999.

24. *Ground Water Issue: Fundamentals of Ground-Water Modeling*, U.S. EPA, OSWER, EPA/540/S-92/005, April 1992.
25. *Assessment Framework for Ground-Water Model Applications*, U.S. EPA, OSWER Directive #9029.00, EPA-500-B-94-003, July 1994.
26. *Ground-Water Modeling Compendium - Second Edition: Model Fact Sheets, Descriptions, Applications and Cost Guidelines*, U.S. EPA, EPA-500-B-94-004, July 1994.
27. *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents*, U.S. EPA, Office of Solid Waste and Emergency Response, OSWER Directive No. 9200.1-23P, EPA 540-R-98-031, July 1999.
28. *Region 5 Instructions on the Preparation of A Superfund Division Quality Assurance Project Plan Based on EPA QA/R-5, Revision 0*, U.S. EPA Region 5, June 2000.
29. *Guidance for the Data Quality Objectives Process (QA-G-4)*, U.S. EPA, EPA/600/R-96/055, August 2000.
30. *Guidance for the Data Quality Objectives Process for Hazardous Waste Sites (QA/G-4HW)*, U.S. EPA, EPA/600/R-00/007, January 2000.
31. *Guidance for the Preparation of Standard Operating Procedures (QA-G-6)*, U.S. EPA, EPA/240/B-01/004, March 2001.
32. *EPA Requirements for Quality Management Plans (QA/R-2)*, U.S. EPA, EPA/240/B-01/002, March 2001.
33. *EPA Requirements for QA Project Plans (QA/R-5)*, U.S. EPA, EPA/240/B-01/003, March 2001.
34. *Guidance for Quality Assurance Project Plans (QA/G-5)*, U.S. EPA, EPA/600/R-98/018, February 1998.
35. *Users Guide to the EPA Contract Laboratory Program*, U.S. EPA, Sample Management Office, OSWER Directive No. 9240.0-01D, January 1991.
36. *Technical Guidance Document: Quality Assurance and Quality Control for Waste Containment Facilities*, U.S. EPA, EPA/600/R-93/182, 1993.
37. *Risk Assessment Guidance for Superfund - Volume I Human Health Evaluation Manual (Part A)*, U.S. EPA, EPA/540/1-89/002, December 1989.

38. *Risk Assessment Guidance for Superfund - Volume I Human Health Evaluation Manual (Part B, Development of Risk-Based Preliminary Remediation Goals)*, U.S. EPA, EPA/540/R-92/003, OSWER Publication 9285.7-01B, December 1991.
39. *Risk Assessment Guidance for Superfund - Volume I Human Health Evaluation Manual (Part C - Risk Evaluation of Remedial Alternatives)*, U.S. EPA, Office of Emergency and Remedial Response, Publication 9285.7-01C, October, 1991.
40. *Risk Assessment Guidance for Superfund - Volume I Human Health Evaluation Manual (Part D - Standardized Planning, Reporting, and Review of Superfund Risk Assessments)*, U.S. EPA, Office of Emergency and Remedial Response, Publication 9285.7-47, December 2001.
41. *Risk Assessment Guidance for Superfund: Volume III - Part A, Process for Conducting Probabilistic Risk Assessment*, U.S. EPA, OSWER Publication 9285.7-45, EPA-540-R-02-002, December 2001.
42. *Policy for Use of Probabilistic in Risk Assessment at the U.S. Environmental Protection Agency*, U.S. EPA, Office of Research and Development, 1997.
43. *Human Health Evaluation Manual, Supplemental Guidance: Standard Default Exposure Factors*, U.S. EPA, OSWER Directive 9285.6-03, March 25, 1991.
44. *Exposure Factors Handbook, Volumes I, II, and III*, U.S. EPA, EPA/600/P-95/002Fa,b,c, August 1997.
45. *Supplemental Guidance to RAGS: Calculating the Concentration Term*, U.S. EPA, OSWER Publication 9285.7-08I, May 1992.
46. *Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities*, U.S. EPA, OSWER Directive 9355.4-12, EPA/540/F-94/043, July 14, 1994.
47. *Clarification to the 1994 Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities*, U.S. EPA, OSWER Directive 9200.4-27, EPA/540/F-98/030, August 1998.